

REMARKS

Upon entry of the present Amendment B, the claims in the application are claims 1-10, of which claims 1, 3, and 7 are independent.

Claims 1-3 and 7 have been amended herein. The applicant respectfully submits that all amendments are fully supported by the original application. The applicant also respectfully submits that the amendments do not introduce any new matter into the application, as all of the subject matter thereof was expressly or inherently disclosed in the original specification.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment B is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

IN THE CLAIMS

Claim Rejections – 35 USC 102

In the rejection of claim 1, the Examiner states that Kurozu discloses an electronic key system for a vehicle including a controller CM, FM, OCM, and a portable transceiver PCM (21), the controller comprising a first means (transmitter 37 of OCM), second means (receiver 35), and third means (buzzer 46), as claimed. In the rejection of claim 2, the Examiner states that Kurozu discloses that the controller further comprises a fourth means (SREM1) and a fifth means (steering lock unit 49), as claimed.

Applicant's Response

Upon review of Kurozu, the applicant finds that the invention of Kurozu is directed to a key-less lock system for an automobile. The system includes a portable communication means (PCM, entry card 21). The PCM receives signals from, and transmits signals to, a controller within the vehicle. The control

unit permits/prevents keyless locking and unlocking operations of a steering lock unit 49 based on the proximity of the card (as held by a user) to an antenna mounted on the vehicle. The system provides a warning if the vehicle door is closed while the card is not within the vehicle (for the stated purpose of preventing loss of the PCM, such as if a passenger were to leave the vehicle and inadvertently carry the PCM away, as discussed at col. 1, lines 47-52). In addition, the system permits/prevents keyless locking and unlocking operations of vehicle door locks and trunk locks.

Because the electronic key system for a motorcycle (or two wheeled vehicle) disclosed by the applicant is clearly different from the key-less locking system for an automobile disclosed by Kurozu, the applicant has amended claim 1 herein to better reflect such differences and thereby more clearly distinguish the applicant's invention from that of the prior art, as discussed further below.

Claim 1 is amended herein to recite that the controller permits power supply to the vehicle so as to enter a travel possible state when the ID data is acknowledged (ie, presence of the card is verified). This feature is not disclosed by Kurozu, who instead discloses that in response to a verification of the presence of the card, a door may be unlocked (col. 5, line 55-58; col. 8, lines 30-35), a door may be prevented from being unlocked (col. 9, lines 64-68), the steering lock unit may be released (col. 6, line 31-35), the steering system may be permitted to be locked (col. 9, lines 1-21), or the trunk lid may be opened (col. 10, lines 30-34).

Claim 1 is further amended to incorporate features originally found in claim 2 so as to more clearly recite that the controller outputs a first request signal t2 (Fig. 5A), via the first means for outputting a request signal, when an activation switch 70 is turned on. And, in addition, that the controller outputs a second request signal t6 (Fig. 5C) following the first signal via the second means for outputting a request signal when a main switch 62 is turned on. In claim 1, the first means for outputting a request signal corresponds to switch 70/request signal generating means 80/transmission circuit 46, and the second means for outputting a request signal corresponds to switch 62/request signal generating means

80/transmission circuit 46. These features are fully supported in the specification on page 13, lines 12-21, on page 17, line 14 to page 18, line 13, and in Fig. 5. This feature is not disclosed or suggest by Kurozu, who discloses several individual instances of communication between the controller and the card. For example, Kurozu discloses that operation of the door request switch DRS triggers communication between the controller and the card 21 (col. 5, line 15-18), operation of the key request switch KRS triggers communication between the controller and the card 21 (col. 6, line 8-15), and sensed opening and closing of vehicle doors also triggers communication between the controller and the card 21 (col. 7, line 20-24). However, each of these examples correspond to an individual instance of communication which is unrelated to any of the other instance of communication, and which may occur in any order, depending on whether the operator requires access to the trunk or car door, or whether the operator wishes to initiate an ignition. Thus, Kurozu clearly does not disclose a first communication followed by a second communication. Moreover, this deficit in the disclosure of Kurozu is not cured by any teaching of Yoshida.

As regards claim 2, the applicant disagrees with the rejection of claim 2 for the reasons stated above with respect to claim 1 as amended herein, from which claim 2 depends. In addition claim 2 is amended herein to recite that the fifth means releases a locked state of the vehicle when the controller receives the ID data in response to the request by the first means. This feature is supported in the specification on page 17, line 14 to page 18, line 13, and is not suggested or disclosed in the prior art.

Claim Rejections – 35 USC 103

At item 4 of the Office Action, the Examiner has rejected claims 3-10 under 35 USC 103(a) as being unpatentable over Kurozu et al. in view of Yoshida.

In the rejection of claim 3, the Examiner states that Kurozu discloses an electronic key system for a

vehicle including a controller CM, FM, and OCM, mounted on the vehicle and a portable transceiver PCM for transmitting an acknowledgement signal based on a receipt of a request signal from the controller, the controller comprising a first means (transmitter 37), second means (receiver 35), and third means (buzzer 46) as claimed, but fails to disclose outputting the request signal to the portable transceiver every fixed period of time.

The Examiner cites Yoshida as being in the same field of endeavor and teaching a transceiver [transmitter] unit 106 transmitting a request signal at a predetermined frequency to the transceiver 107 for providing two-way communication in order to control functions of the vehicle (Fig. 10; col. 8, lines 14-62). The Examiner considers it obvious to modify Kurozu to have the first means outputting the request signal every fixed period of time in order to provide bi-directional communication between the controller and key to assure that the key is not missing from the predetermined area of the vehicle.

In the rejection of claim 7, the Examiner states that Kurozu and Yoshida disclose an electronic key system for a vehicle including a controller CM, FM, OCM, and portable transceiver PCM, card 21, the controller comprising a first means (transmitter 37), second means (receiver 35), third means (buzzer 46), fourth means (transmitter 37), and fifth means (buzzer 46) as claimed.

Applicant's Response

The applicant respectfully disagrees with the rejections of claims 3 and 7. Upon careful consideration of the rejection, the applicant finds that the rejections are unfounded because the proposed modification of Kurozu's keyless vehicle lock system relative to a select feature of Yoshida's power supply control device is improperly based on a suggestion coming entirely from the Examiner (guided by impermissible hindsight of applicant's disclosure), rather than from any teaching or suggestion which may be fairly gleaned from the references themselves. Particularly, the applicant notes that claim 3 defines that the third means outputs a warning when the acknowledgement signal is not detected in the second means, and that the specification explains that this feature is very desirable for minimizing the possibility of the

electronic key for a motorcycle (two wheeled vehicle) being lost while the motorcycle is traveling, etc.; whereas the discussed feature of Yoshida's system functions to automatically turn off / disconnect the power supply circuit which has accidentally been left on, but does not provide any warning in association with same. Hence, one could not arrive at the claimed invention including the third means by directly applying Yoshida's teaching to the system of Kurozu.

Upon review of Yoshida, the applicant finds that Yoshida discloses a device for controlling the electric power supply of a motorcycle. The device includes a portable transceiver 18,107, a control unit 16 for controlling plural actuators including a steering lock actuator 29, and for transmitting and receiving signals between the control unit and the portable transceiver. The device also includes an antenna 105, 17 disposed "at an appropriate position of the vehicle body" (generally below the handle bars) for use in signal transmission. Yoshida's system also includes a feature whereby the vehicle's power supply circuit is configured to provide automatic shut off of the power supply circuit if there is no response to signals to the portable transceiver, for purposes of conserving battery power. Specifically, Yoshida teaches that when the engine stops for more than 1 minute, a request signal is transmitted from the controller to the transceiver. If the transceiver does not send a response code signal, the main power supply of the vehicle is automatically turned off (col. 10, lines 56-64). Yoshida discusses that this is desirable in a situation where the vehicle operator has moved away from the vehicle. In other words, no warning is provided in this situation, since it would be meaningless to provide a warning because the operator has moved away from the vehicle and thus would not receive the warning.

Although the applicant disagrees with the rejections of claims 3 and 7 because the electronic key system for a motorcycle disclosed by the applicant is clearly different from the key-less locking system for an automobile disclosed by Kurozu as modified by Yoshida, the applicant has amended independent claims 3 and 7 to more clearly distinguish the applicant's invention from that of the prior art. In particular, claims 3 and 7 are amended herein to more clearly recite that the controller outputs a request signal to the

portable transceiver every fixed period of time during travel of the vehicle. As disclosed by the applicant, by doing so the controller can determine if the portable transceiver is dropped during vehicle travel. This feature is not suggested by Kurozu, who merely discloses that after turning off the engine, the system verifies that the vehicle is stopped before permitting locking of the steering system (col. 8, lines 59-68). Moreover, it is not suggested by Yoshida, who teaches outputting a request signal to the portable transceiver every fixed period of time when the engine is stopped but does not suggest doing so while the engine is running.

In the rejection of claims 4 and 8, the Examiner states that Kurozu and Yoshida both fail to specifically disclose the output period for the request signal in a range of 10 to 100 seconds, but considers the claimed range to be obvious since the period request signal can have any range as a matter of choice.

Applicant's Response

The applicant respectfully disagrees with the rejections of claims 4 and 8 for the reasons stated above with respect to claims 3 and 7, from which claims 4 and 8 respectively depend.

In the rejection of claims 5 and 9, the Examiner states that Kurozu discloses the third means counts periods in which the acknowledgement signal is not detected, and outputs a warning with the count becomes greater than a specified value.

Applicant's Response

The applicant respectfully disagrees with the rejections of claims 5 and 9 for the reasons stated above with respect to claims 3 and 7, from which claims 5 and 9 respectively depend.

In addition, the applicant disagrees that the buzzer 46, indicated by the Examiner to correspond to the third means (see the rejection of claim 3 above) is capable of counting periods in which the acknowledgement signal is not detected. As disclosed by Kurozu, the Buzzer 46 is a warning means WM

controlled by the controlling means CM. As shown in Fig. 2, the control section 39 (CM) is connected through an interface circuit 45 with the buzzer 46 (col. 3, lines 65-68). At col. 6 of the disclosure, in the text cited by the Examiner to substantiate the rejection, Kurozu discloses how the keyless lock system enables the driver to start the engine. Kurozu discloses that when the main selector switch is not turned to the ACC position, the ignition switch is in the OFF state, and the driver pushes the key request switch KRS, the controller transmits a request to the card 21. If no reply is received from the card (ie, the card is not in vicinity), “the control system actuates the warning buzzer 46” and engine start is prevented. Thus, the buzzer is merely an output device and does not function to count periods in which the acknowledgement signal is not detected, as claimed.

In the rejections of claims 6 and 10, the Examiner states that Kurozu discloses the controller further comprises fourth means (SREM1 or switch request examining means 1, Fig. 1) for outputting a request signal to the portable transceiver based on activation of the controller (via KRS input), and fifth means (steering lock unit 49) for releasing a locked state of the vehicle when an acknowledgement signal from the portable transceiver is detected in the fourth means based on a request signal from the fourth means (Figs. 1-3; col. 6, line 8-44).

Applicant's Response

The applicant respectfully disagrees with the rejections of claims 6 and 10 for the reasons stated above with respect to claims 3 and 7, from which claims 6 and 10 respectively depend.

Other Matters

The applicant notes that the Examiner has not acknowledged receipt of the drawings or receipt of the documents verifying the applicant's claim for foreign priority, particularly as regards a copy of the notification concerning transmittal of the priority documents from the International Bureau. The

applicant respectfully requests that the Examiner provide confirmation that these documents have been received.

CONCLUSION

Based on all of the foregoing, the applicant respectfully submits that all of the rejections set forth in the Office Action are overcome, and that as presently amended, all of the pending claims are believed to be allowable over all of the references of record, whether considered singly or in combination. The applicant requests reconsideration and withdrawal of the rejection of record, and allowance of the pending claims.

If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact the applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable consideration is respectfully requested.

Respectfully submitted,



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